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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

**Brooks Construction Company, Inc.
3930 Hardrock Road
Fort Wayne, Indiana 46809**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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| Operation Permit No.: F003-14035-03112 | |
| Issued by:Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality | Issuance Date:February 8, 2002 Expiration Date:February 8, 2007 |

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary hot mix asphalt plant.

| | |
|-------------------------|--|
| Authorized Individual: | Timothy L. Sievers, Plant Operations Superintendent |
| Source Address: | 3930 Hardrock Road, Fort Wayne, Indiana 46809 |
| Mailing Address: | P.O. Box 9560, Fort Wayne, Indiana 46899 |
| SIC Code: | 2951 |
| County Location: | Allen |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act |

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) The drum-mix portion of this source, consisting of the following:

- (1) one (1) aggregate drum-mix dryer (ID #2), installed in 1992, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas fired, or landfill gas (LFG)/natural gas co-fired, aggregate dryer burner (ID #3), with a maximum rated capacity of 96.8 million British thermal units (MMBtu) per hour, using No. 2 oil as back-up fuel, with one (1) inertial knockout box and one (1) baghouse in series for particulate matter control, exhausting at one (1) stack identified as SV1-D;
- (2) one (1) drag slat hot mix conveyor; three (3) feed conveyors; and one (1) screen; and
- (3) cold-mix (emulsified) asphalt storage piles.

(b) The batch-mix portion of this source, consisting of the following:

- (1) one (1) aggregate rotary dryer (ID #4), installed in 1989, with a maximum capacity of 220 tons per hour, equipped with one (1) natural gas fired aggregate dryer burner (ID #5), with a maximum rated capacity of 84.0 million British thermal units (MMBtu) per hour, using No. 2 oil as back-up fuel, with one (1) cyclone and one (1) baghouse in series for particulate matter control, exhausting at one (1) stack identified as SV1-B; and

- (2) Asphalt batch tower, consisting of the following:
 - (A) one (1) hot elevator;
 - (B) one (1) screen;
 - (C) four (4) hot bins, each with a maximum holding capacity of 40 tons;
 - (D) one (1) aggregate hopper, with a maximum holding capacity of 6,000 pounds (lb);
 - (E) one (1) asphalt hopper, with a maximum holding capacity of 600 lb;
 - (F) one (1) pugmill, with a maximum holding capacity of 6,000 lb; and
 - (G) one (1) skip hoist with a maximum holding capacity of 6,000 lb.
- (c) General material conveying and handling operations, including:
 - (1) cold feed system consisting of eight (8) bins with a total maximum holding capacity of 200 tons;
 - (2) storage silos consisting of five (5) bins with a total maximum storage capacity of 900 tons;
 - (3) one (1) recycled asphalt pavement (RAP) feed bin with a maximum holding capacity of 30 tons;
 - (4) one (1) RAP storage pile with a maximum storage capacity of 18,750 tons; and
 - (5) aggregate storage piles, with a total maximum storage capacity of 101,500 tons.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) natural gas-fired combustion sources with heat input equal to or less than ten (10) MMBtu per hour, including two (2) direct-fired hot oil heaters installed in July 1982 and April 1991, respectively, each with a heat input rating of 1.4 MMBtu per hour, exhausting at stacks SV2 and SV3, respectively. This insignificant activity uses No. 2 oil as a back-up fuel;
- (b) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (c) paved and unpaved roads and parking lots with public access [326 IAC 6-4] [326 IAC 6-5];
- (d) one (1) QA lab and one (1) State lab;

- (e) other categories with emissions below insignificant thresholds:
 - (1) storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) lb per day of VOC including:
 - (A) one (1) liquid asphalt storage tank (ID #20A), constructed in January 1985, with a maximum storage capacity of 340,000 gallons, exhausting at one (1) stack, identified as SV4 [326 IAC 12 and 40 CFR 60, Subpart Kb];
 - (B) one (1) liquid asphalt storage tank (ID #20B), constructed in 1969, with a maximum storage capacity of 15,000 gallons, exhausting at one (1) stack, identified as SV5;
 - (C) one (1) liquid asphalt storage tank (ID #20C), constructed in July 1992 each with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as SV6 [326 IAC 12 and 40 CFR 60, Subpart Kb]; and
 - (D) one (1) liquid asphalt storage tank (ID #20D), constructed in 1997 with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as SV7 [326 IAC 12 and 40 CFR 60, Subpart Kb].
 - (2) cutting, grinding and welding operations located in the shop [326 IAC 6-3-2].

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ, may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:
- Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
 - (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

- (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;

- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

| |
|---------------|
| Entire Source |
|---------------|

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on March 11, 1996. The plan is included as Attachment A.

C.8 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.9 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.10 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.11 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.12 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.18 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ, upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

- (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B - Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) The drum-mix portion of this source, consisting of the following:
- (1) one (1) aggregate drum-mix dryer (ID #2), installed in 1992, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas fired, or landfill gas (LFG)/natural gas co-fired, aggregate dryer burner (ID #3), with a maximum rated capacity of 96.8 million British thermal units (MMBtu) per hour, using No. 2 oil as back-up fuel, with one (1) inertial knockout box and one (1) baghouse in series for particulate matter control, exhausting at one (1) stack identified as SV1-D;
 - (2) one (1) drag slat hot mix conveyor; three (3) feed conveyors; and one (1) screen; and
 - (3) cold-mix (emulsified) asphalt storage piles.
- (b) The batch-mix portion of this source, consisting of the following:
- (1) one (1) aggregate rotary dryer (ID #4), installed in 1989, with a maximum capacity of 220 tons per hour, equipped with one (1) natural gas fired aggregate dryer burner (ID #5), with a maximum rated capacity of 84.0 million British thermal units (MMBtu) per hour, using No. 2 oil as back-up fuel, with one (1) cyclone and one (1) baghouse in series for particulate matter control, exhausting at one (1) stack identified as SV1-B; and
 - (2) Asphalt batch tower, consisting of the following:
 - (A) one (1) hot elevator;
 - (B) one (1) screen;
 - (C) four (4) hot bins, each with a maximum holding capacity of 40 tons;
 - (D) one (1) aggregate hopper, with a maximum holding capacity of 6,000 pounds (lb);
 - (E) one (1) asphalt hopper, with a maximum holding capacity of 600 lb;
 - (F) one (1) pugmill, with a maximum holding capacity of 6,000 lb; and
 - (G) one (1) skip hoist with a maximum holding capacity of 6,000 lb.
- (c) General material conveying and handling operations, including:
- (1) cold feed system consisting of eight (8) bins with a total maximum holding capacity of 200 tons;
 - (2) storage silos consisting of five (5) bins with a total maximum storage capacity of 900 tons;
 - (3) one (1) recycled asphalt pavement (RAP) feed bin with a maximum holding capacity of 30 tons;
 - (4) one (1) RAP storage pile with a maximum storage capacity of 18,750 tons; and
 - (5) aggregate storage piles, with a total maximum storage capacity of 101,500 tons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart I.

D.1.2 Particulate Matter (PM) [326 IAC 12][40 CFR 60.90 to 60.93]

Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I):

- (a) particulate matter emissions from the drum-mix and batch-mix asphalt plants shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf), and
- (b) the visible emissions from each plant shall not exceed 20 percent opacity.

This particulate matter emission limitation is equivalent to 20.8 pounds per hour (lb/hr) based on an exhaust rate of 92,000 actual cubic feet per minute (acfm) and an exhaust temperature of 300 degrees Fahrenheit (EF) for the drum-mix plant, and 12.2 lb/hr based on an exhaust rate of 54,000 acfm and an exhaust temperature of 250EF for the batch-mix plant.

D.1.3 Particulate Matter (PM) and PM-10 [326 IAC 2-2][40 CFR 52.21][326 IAC 2-8-4]

The source shall comply as follows:

- (a) PM emissions from batch-mix and drum-mix aggregate mixing and drying shall be limited to 0.030 pounds of PM emitted per ton of asphalt produced, equivalent to less than 6.51 pounds per hour from the batch-mix aggregate dryer and less than 11.84 pounds per hour from the drum-mix aggregate dryer.
- (b) PM-10 emissions from batch-mix and drum-mix aggregate mixing and drying shall be limited to 0.023 pounds of PM10 emitted per ton of asphalt produced, equivalent to less than 5.15 pounds per hour from the batch-mix aggregate dryer and less than 9.36 pounds per hour from the drum-mix aggregate dryer. PM-10 includes filterable and condensable PM-10.

These limits are required to limit the source-wide potential to emit of PM and PM-10 to less than 250 and 100 tons per twelve (12) consecutive month period, respectively. Compliance with this condition makes the requirements of 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD), and 326 IAC 2-7 (Part 70) not applicable.

D.1.4 Fuel Usage Limitation [326 IAC 2-8-4]

The source shall limit the consumption of fuel as follows:

- (a) The total input of No. 2 fuel oil and No. 2 fuel oil equivalents to the two (2) aggregate dryer burners (ID#3 and ID#5) combined shall be limited to less than 2,681,943 U.S. gallons per twelve (12) consecutive month period. These usage limits are required to limit the potential to emit nitrogen oxides (NO_x) and sulfur dioxide (SO₂) from the source to less than 100 tons per 12 consecutive month period, based on a maximum fuel oil sulfur content of 0.5% by weight.

- (b) For purposes of determining compliance with paragraph (a) of this condition, the following shall apply:
- (1) each one (1) million cubic feet (MMcf) of natural gas burned shall be equivalent to 8.6 gallons of No. 2 oil, based on SO₂ emissions, such that the total gallons of No. 2 distillate fuel oil and No. 2 oil equivalent input does not exceed the limit specified.
 - (2) each one (1) million cubic feet (MMcf) of landfill gas burned shall be equivalent to 88.6 gallons of No. 2 oil, based on SO₂ emissions, such that the total gallons of No. 2 distillate fuel oil and No. 2 oil equivalent input does not exceed the limit specified.

Compliance with this condition makes the requirements of 326 IAC 2-7 (Part 70) not applicable to the source.

D.1.5 Sulfur Dioxide (SO₂) [326 IAC 7-1.1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 96.8 MMBtu per hour burner for the drum-mix dryer and the 84.0 MMBtu per hour burner for the batch-mix dryer each shall be limited to 0.5 pounds per MMBtu heat input. This is equivalent to a maximum fuel oil sulfur content of five one-hundredths percent (0.5%) while combusting No. 2 fuel oil in each burner. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and control devices.

Compliance Determination Requirements

D.1.7 Particulate Matter (PM) and PM-10

In order to comply with Conditions D.1.2 and D.1.3, the baghouses for PM and PM-10 control shall be in operation at all times when the respective drum-mix dryer and burner and the batch-mix dryer and burner are in operation.

D.1.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 30 to 36 months after issuance of this permit, the Permittee shall perform the following to demonstrate compliance with Conditions D.1.2 and D.1.3 for both the drum-mix and batch-mix aggregate dryers:

- (a) PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 for PM and methods as approved by the Commissioner for PM-10. PM-10 includes filterable and condensable PM-10.
- (b) Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of Condition D.1.2.

This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

D.1.9 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.5 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.10 Visible Emissions Notations

- (a) Visible emissions notations of the drum-mix and batch-mix aggregate dryer/burner baghouse stack exhausts, and the conveyors, transfer points, aggregate storage piles, and unpaved roads, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee will record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) The Compliance Response Plan for these facilities shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.11 Parametric Monitoring

The Permittee shall record the total static pressure drop across each baghouse controlling the respective drum-mix and batch-mix aggregate dryers, at least once per shift when the respective aggregate dryer is in operation and venting to the atmosphere. When for any one reading, the pressure drop across each baghouse is outside the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.12 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the drum-mix and batch-mix aggregate mixing/drying operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.13 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B - Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.14 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.4 and D.1.5, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Conditions D.1.4 and D.1.5.
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual No. 2 oil and No. 2 oil equivalent usage per month since the last compliance determination period;
 - (3) Average heating value of the No. 2 oil;
 - (4) Average sulfur dioxide (SO₂) emission rate (pounds per million Btu);
 - (5) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (6) Fuel supplier certifications.
- (7) The name of the fuel supplier; and
- (8) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.10, the Permittee shall maintain records of once-per-shift visible emission notations of the drum-mix and batch-mix aggregate dryer/burner baghouse stack exhausts, and the conveyors, transfer points, aggregate storage piles, and unpaved roads.
- (c) To document compliance with Condition D.1.11, the Permittee shall maintain weekly records of the inlet and outlet differential static pressure during normal operation when venting to the atmosphere.

- (d) To document compliance with Condition D.1.12, the Permittee shall maintain records of the results of the inspections required under Condition D.1.12 and the dates the vents are redirected.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.15 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) lb per day of VOC including:
 - (A) one (1) liquid asphalt storage tank (ID #20A), constructed in January 1985, with a maximum storage capacity of 340,000 gallons, exhausting at one (1) stack, identified as SV4 [326 IAC 12 and 40 CFR 60, Subpart Kb];
 - (C) one (1) liquid asphalt storage tank (ID #20C), constructed in July 1992 each with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as SV6 [326 IAC 12 and 40 CFR 60, Subpart Kb]; and
 - (D) one (1) liquid asphalt storage tank (ID #20D), constructed in 1997 with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as SV7 [326 IAC 12 and 40 CFR 60, Subpart Kb].
- (2) cutting, grinding and welding operations located in the shop [326 IAC 6-3-2].

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the cutting, grinding and welding operations located in the shop, as insignificant activities, shall not exceed the allowable emission rate of particulate matter per hour as determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where: E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Compliance Determination Requirements

There are no specific compliance determination requirements applicable to these facilities.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific compliance monitoring requirements applicable to these facilities.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.2 Record Keeping Requirements [326 IAC 12][40 CFR 60.110b, Subpart Kb]

Pursuant to New Source Performance Standard (NSPS), 326 IAC 12 and 40 CFR Part 60.116 Subpart Kb, the Permittee shall maintain accessible records for the life of each volatile liquid storage tank. The records for each tank shall include:

- (a) The date the tank was manufactured,
- (b) The dimensions of the tank,
- (c) An analysis showing the capacity of the tank, and
- (d) The vapor pressure of the VOC stored; indicating the minimum true vapor pressure of the VOC is less than 3 kPa for tank #20A and less than 15 kPa for tanks #20C and #20D.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

cold-mix (emulsified) asphalt storage piles

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Volatile Organic Compound (VOC) [326 IAC 8-5-2] [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:
- (1) penetrating prime coating
 - (2) stockpile storage
 - (3) application during the months of November, December, January, February and March.
- (b) Emulsified asphalt with VOC solvent liquid binder used in the production of cold mix asphalt shall be limited to less than 165.6 tons of VOC solvent per twelve (12) consecutive month period. This is equivalent to limiting the VOC emitted from solvent use to less than 76.8 tons per 12 consecutive month period, based on the following definition:

Emulsified asphalt with solvent - contains a maximum of 15 percent (%) of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, shall be 7% or less of the total emulsion by volume.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.3.2 Record Keeping Requirements

To document compliance with Condition D.3.1(b), the Permittee shall maintain records in accordance with (a) through (d) below. Records maintained for (a) through (d) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.3.1(b).

- (a) Calendar dates covered in the compliance determination period;
- (b) Emulsified asphalt binder usage per month since the last compliance determination period;
- (c) VOC solvent content by weight of the emulsified asphalt binder used each month; and

- (d) Amount of VOC solvent used in the production of cold mix asphalt, and the amount of VOC emitted each month.

All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.3 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Brooks Construction Company, Inc.
Source Address: 3930 Hardrock Road, Fort Wayne, Indiana 46809
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: F003-14035-03112

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Brooks Construction Company, Inc.
Source Address: 3930 Hardrock Road, Fort Wayne, IN 46809
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: F003-14035-03112

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

| |
|---|
| Date/Time Emergency started: |
| Date/Time Emergency was corrected: |
| Was the facility being properly operated at the time of the emergency? Y N Describe: |
| Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other: |
| Estimated amount of pollutant(s) emitted during emergency: |
| Describe the steps taken to mitigate the problem: |
| Describe the corrective actions/response steps taken: |
| Describe the measures taken to minimize emissions: |
| If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: |

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Brooks Construction Company, Inc.
Source Address: 3930 Hardrock Road, Fort Wayne, Indiana 46809
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: F003-14035-03112
Facility: 96.8 MMBtu/hr drum-mix dryer burner & 84.0 MMBtu/hr batch-mix dryer burner
Parameter: No. 2 fuel oil usage and equivalent (as surrogate for SO₂ and NO_x)
Limit: (a) Total input of No. 2 fuel oil and No. 2 fuel oil equivalents to the two (2) aggregate dryer burners shall be limited to less than 2,681,943 U.S. gallons per twelve (12) consecutive month period.
(b) For purposes of determining compliance with paragraph (a) of this condition, the following shall apply:
(1) each one (1) million cubic feet (MMcf) of natural gas burned shall be equivalent to 8.6 gallons of No. 2 oil.
(2) each one (1) million cubic feet (MMcf) of landfill gas burned shall be equivalent to 88.6 gallons of No. 2 oil.

YEAR: _____

| Month | No. 2 Fuel Oil and Equivalent Usage This Month (gallons) | | No. 2 Fuel Oil and Equivalent Usage Previous 11 Months (gallons) | | 12 Month Total No. 2 Fuel Oil and Equivalent Usage (gallons) |
|---------|--|--------|--|--------|--|
| | No.2 Oil | Equiv. | No.2 Oil | Equiv. | |
| Month 1 | | | | | |
| Month 2 | | | | | |
| Month 3 | | | | | |

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Brooks Construction Company, Inc.
Source Address: 3930 Hardrock Road, Fort Wayne, Indiana 46809
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: F003-14035-03112
Facility: Production of cold mix asphalt
Parameter: VOC solvent in emulsified asphalt liquid binder used in the production of cold mix asphalt (as surrogate for volatile organic compounds, VOC)
Limit: Less than 165.6 tons of VOC solvent per twelve (12) consecutive month period

YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|-------|---|---|---|
| | Total VOC Solvent Usage This Month (tons) | Total VOC Solvent Usage Previous 11 Months (tons) | 12 Month Total VOC Solvent Usage (tons) |
| | | | |
| | | | |
| | | | |

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Brooks Construction Company, Inc.
Source Address: 3930 Hardrock Road, Fort Wayne, Indiana 46809
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: F003-14035-03112

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

| | |
|--|-------------------------------|
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |

| | |
|--|-------------------------------|
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |

| | |
|--|-------------------------------|
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

APPENDIX A

ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN

- (a) Fugitive particulate matter (dust) emissions from paved roads, unpaved roads, and parking lots shall be controlled by one or more of the following measures:
 - (1) Paved roads and parking lots:
 - (A) Cleaning by vacuum sweeping on an as needed basis (monthly at a minimum).
 - (B) Power brooming while wet either from rain or application of water.
 - (2) Unpaved roads and parking lots:
 - (A) Paving with asphalt.
 - (B) Treating with emulsified asphalt on an as needed basis.
 - (C) Treating with water on an as needed basis.
 - (D) Double chip and seal the road surface and maintained on an as needed basis.
- (b) Fugitive particulate matter (dust) emissions from aggregate stockpiles shall be controlled by one or more of the following measures:
 - (1) Maintain minimum size and number of stock piles of aggregate.
 - (2) Treating around the stockpile area with emulsified asphalt on an as needed basis.
 - (3) Treating around the stockpile area with water on an as needed basis.
 - (4) Treating the stockpiles with water on an as needed basis.
- (c) Fugitive particulate matter (dust) emissions from outdoor conveying of aggregates shall be controlled by one or more of the following measures:
 - (1) Apply water at the feed and the intermediate points on an as needed basis.
- (d) Fugitive particulate matter (dust) emissions from the transferring of aggregates shall be controlled by one or more of the following measures:
 - (1) Minimize the vehicular distance between the transfer points.
 - (2) Enclose the transfer points.
 - (3) Apply water on transfer points on an as needed basis.
- (e) Fugitive particulate matter (dust) emissions from transporting of aggregate by truck, front end loader, etc. shall be controlled by one or more of the following measures:
 - (1) Tarping the aggregate hauling vehicles.

- (2) Maintain vehicle bodies in a condition to prevent leakage.
 - (3) Spray the aggregates with water.
 - (4) Maintain a 10 mile per hour (MPH) speed limit in the yard.
- (f) Fugitive particulate matter (dust) emissions from the loading and unloading of aggregate shall be controlled by one or more of the following measures:
- (1) Reduce free fall distance to a minimum.
 - (2) Reduce the rate of discharge of the aggregate.
 - (3) Spray the aggregate with water on an as needed basis.

“An as needed basis” means the frequency or quantity of application necessary to minimize visible particulate matter emissions.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Name: Brooks Construction Company, Inc.
Source Location: 3930 Hardrock Road, Fort Wayne, IN 46809
County: Allen
SIC Code: 2951
Operation Permit No.: F003-14035-03112
Permit Reviewer: Michael Hirtler / EVP

On November 29, 2001, the Office of Air Quality (OAQ) had a notice published in the Fort Wayne Journal Gazette, in Fort Wayne, Indiana, stating that Brooks Construction Company, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a stationary hot mix asphalt plant with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

No comments were received from the source or other interested parties. However, upon further review, the OAQ has decided to make the following revisions to the permit (new language is bolded, deleted language is in strikeout):

1. Condition A.5 has been updated to incorporate new Article 2 rule 326 IAC 2-1.1-9.5, that was adopted on October 3, 2001 and that became effective on January 19th, 2002. For more information about this rulemaking, refer to the October 2001 Air Pollution Control Board Packet which can be found on the internet at <http://www.state.in.us/idep/air/rules/apcb/packets/index.html>. The rule revisions were published in the February 1, 2002 Indiana Register which can be found on the internet at <http://www.IN.gov/legislative/register/index-25.html>.

A.5 — Prior Permit Conditions

- ~~(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.~~
- ~~(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.~~

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either**

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

2. Condition B.10(c) (Compliance with Permit Conditions) is revised to provide a more accurate reference as follows:

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in ~~condition~~ **Section B**, Emergency Provisions.

3. The IDEM, OAQ, has been revised Condition B.15 (Deviations from Permit Requirements and Conditions) and Parametric Monitoring Condition D.1.11 to address concerns regarding the independent enforceability of permit conditions [see 326 IAC 2-8-4(5)]. The Parametric Monitoring condition has been revised to establish normal operating conditions for the emission unit or control device and to require implementation of the compliance response plan when monitoring indicates operation is outside the normal range. Language that inferred that operating outside of the normal range could be considered by itself to be a deviation was removed. B.15 has been revised to remove language that could be considered to grant exemptions from permit requirements and to clarify reporting obligations.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. ~~Deviations that are required to be reported by an applicable requirement~~ **A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit**, shall be reported according to the schedule stated in the applicable requirement and ~~do~~ **does** not need to be included in this report.

~~The notification by the Permittee~~ **Quarterly Deviation and Compliance Monitoring Report** does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit ~~or a rule. It does not include:~~

~~_____ (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or~~

~~_____ (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.~~

~~_____ A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.~~

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

D.1.11 Parametric Monitoring

The Permittee shall record the total static pressure drop across each baghouse controlling the respective drum-mix and batch-mix aggregate dryers, at least once per shift when the respective aggregate dryer is in operation and venting to the atmosphere. ~~Unless operated under conditions for which the Compliance Response Plan specifies otherwise~~ **When for any one reading**, the pressure drop across each baghouse ~~shall be maintained within~~ **is outside** the normal range of 2.0 to 10.0 inches of water or a range established during the latest stack test. ~~The, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.~~ **A pressure reading that is outside the above mentioned range is not a deviation from this permit.** Failure to take response steps in accordance with Section C - Compliance Monitoring **Response Plan - Failure to Take Response Steps Preparation, Implementation, Records, and Reports**, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

4. Condition B.22 (Transfer of Ownership or Operational Control) is revised to correct the citation as follows:

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-~~11~~**10**](b)(3)]

5. Conditions C.4, C.5, C.6, C.9, and D.1.5 have been modified by removing language stating that the conditions are not federally enforceable. Federal law states that failure to comply with any permit condition issued under a program that has been approved into a State Implementation Plan (SIP) is to be treated as a violation of the SIP (40 CFR 52.23). This has the effect of making all FESOP conditions federally enforceable. Indiana's FESOP program was approved as a part of Indiana's SIP at 40 CFR 52.788. Neither the program nor the underlying rule, 326 IAC 2-8 contains provisions for designating certain conditions as not federally enforceable. The changes are as follows:

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. ~~326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.~~

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. ~~326 IAC 9-1-2 is not federally enforceable.~~

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). ~~326 IAC 6-4-2(4) is not federally enforceable.~~

C.9 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. ~~The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.~~

D.1.5 Sulfur Dioxide (SO₂) [326 IAC 7-1.1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 96.8 MMBtu per hour burner for the drum-mix dryer and the 84.0 MMBtu per hour burner for the batch-mix dryer each shall be limited to 0.5 pounds per MMBtu heat input. This is equivalent to a maximum fuel oil sulfur content of five one-hundredths percent (0.5%) while combusting No. 2 fuel oil in each burner. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. ~~326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.~~

6. 326 IAC 2-8-3 requires any application form, report, or compliance certification to be certified by the Authorized Individual. IDEM, OAQ has revised C.10(d) (Asbestos Abatement Projects) to clarify that the asbestos notification does not require a certification by the authorized individual, but it does need to be certified by the owner or operator. IDEM, OAQ has revised C.19 (Actions Related to Noncompliance Demonstrated by a Stack Test); a certification by the authorized individual is required for the notification sent in response to non-compliance with a stack test. The changes are as follows:

C.10 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ, that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ, may extend the retesting deadline.
- (c) IDEM, OAQ, reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do ~~not~~ require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

7. IDEM, OAQ, has restructured C.18 to clarify the contents and implementation of the compliance response plan. The name of the condition has been changed to better reflect the contents of the condition. The language regarding the OAQ's discretion to excuse failure to perform monitoring under certain conditions has been deleted. The OAQ retains this discretion to excuse minor incidents of missing data; however, it is not necessary to state criteria regarding the exercise of that discretion in the permit. The condition is revised as follows, with Conditions D.1.10, D.1.11 and D.1.13 also revised without replication below to reflect the title change to Condition C.18:

C.18 ~~Compliance Monitoring~~ **Response Plan - Failure to Take Response Steps Preparation, Implementation, Records, and Reports** [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to **prepare** ~~implement: a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:~~

- ~~_____ (1) This condition;~~
 - ~~_____ (2) The Compliance Determination Requirements in Section D of this permit;~~
 - ~~_____ (3) The Compliance Monitoring Requirements in Section D of this permit;~~
 - ~~_____ (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and~~
 - (5) ~~A a~~ **A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, **supplemented from time to time by the Permittee, and** maintained on site, and is comprised of:**

 - ~~(A)(1)~~ **Reasonable response steps that may be implemented in the event that compliance-related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.**
 - ~~(B)~~ ~~A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.~~
 - (2) **If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.**
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition **as follows:** ~~Failure to take reasonable response steps may constitute a violation of the permit.~~

- (1) **Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or**
 - (2) **If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.**
 - (3) **If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.**
 - (4) **Failure to take reasonable response steps shall constitute a violation of the permit.**
- (c) ~~Upon investigation of a compliance monitoring excursion, the~~ **The** Permittee is ~~excused from taking~~ **not required to take any** further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment **and** ~~This shall be an excuse from taking further response steps providing that~~ prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) **When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B - Deviations from Permit Requirements and Conditions.**
- ~~(d)(e) Records shall be kept of all instances in which the compliance-related information was not met and of all response steps taken.~~ **The Permittee shall record all instances when response steps are taken.** In the event of an emergency, the provisions of 326 IAC ~~2-7-16~~ **2-8-12** (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

- (e)(f) **Except as otherwise provided by a rule or provided specifically in Section D**, all monitoring ~~as~~ required in Section D shall be performed ~~at all times when~~ the equipment **emission unit** is operating, **except for time necessary to perform quality assurance and maintenance activities**. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) ~~At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.~~
8. Condition D.1.14 (Record Keeping Requirements) has been revised to eliminate record keeping of the baghouse cleaning cycle. OAQ has decided that this is unnecessary since monitoring and record keeping of pressure drop and/or visible emission notations would manifest a cleaning cycle problem, should such exist. Baghouse performance and the keeping of cleaning cycle records is more appropriate for the requisite PMP or CRP. The condition is revised as follows:

D.1.14 Record Keeping Requirements

- (c) To document compliance with Condition D.1.11, the Permittee shall maintain the following:
- (1) ~~Weekly records of the following operational parameters~~ **inlet and outlet differential static pressure** during normal operation when venting to the atmosphere:
- _____ (A) ~~Inlet and outlet differential static pressure; and~~
- _____ (B) ~~Cleaning cycle operation.~~

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD) for a Federally Enforceable Operating
Permit (FESOP) Renewal**

Source Background and Description

Source Name: Brooks Construction Company, Inc.
Source Location: 3930 Hardrock Road, Fort Wayne, IN 46809
County: Allen
SIC Code: 2951
Operation Permit No.: F003-14035-03112
Permit Reviewer: Michael Hirtler / EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Brooks Construction Company, Inc. relating to the operation of a stationary hot mix asphalt plant. Brooks Construction Company, Inc. was issued FESOP F003-5405-03112 on December 13, 1996.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) The drum-mix portion of this source, consisting of the following:
 - (1) one (1) aggregate drum-mix dryer (ID #2), installed in 1992, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas fired, or landfill gas (LFG)/natural gas co-fired, aggregate dryer burner (ID #3), with a maximum rated capacity of 96.8 million British thermal units (MMBtu) per hour, using No. 2 oil as back-up fuel, with one (1) inertial knockout box and one (1) baghouse in series for particulate matter control, exhausting at one (1) stack identified as SV1-D;
 - (2) one (1) drag slat hot mix conveyor; three (3) feed conveyors; and one (1) screen; and
 - (3) cold-mix (emulsified) asphalt storage piles.
- (b) The batch-mix portion of this source, consisting of the following:
 - (1) one (1) aggregate rotary dryer (ID #4), installed in 1989, with a maximum capacity of 220 tons per hour, equipped with one (1) natural gas fired aggregate dryer burner (ID #5), with a maximum rated capacity of 84.0 million British thermal units (MMBtu) per hour, using No. 2 oil as back-up fuel, with one (1) cyclone and one (1) baghouse in series for particulate matter control, exhausting at one (1) stack identified as SV1-B; and
 - (2) Asphalt batch tower, consisting of the following:

- (A) one (1) hot elevator;
 - (B) one (1) screen;
 - (C) four (4) hot bins, each with a maximum holding capacity of 40 tons;
 - (D) one (1) aggregate hopper, with a maximum holding capacity of 6,000 pounds (lb);
 - (E) one (1) asphalt hopper, with a maximum holding capacity of 600 lb;
 - (F) one (1) pugmill, with a maximum holding capacity of 6,000 lb; and
 - (G) one (1) skip hoist with a maximum holding capacity of 6,000 lb.
- (c) General material conveying and handling operations, including:
- (1) cold feed system consisting of eight (8) bins with a total maximum holding capacity of 200 tons;
 - (2) storage silos consisting of five (5) bins with a total maximum storage capacity of 900 tons;
 - (3) one (1) recycled asphalt pavement (RAP) feed bin with a maximum holding capacity of 30 tons;
 - (4) one (1) RAP storage pile with a maximum storage capacity of 18,750 tons; and
 - (5) aggregate storage piles, with a total maximum storage capacity of 101,500 tons.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) natural gas-fired combustion sources with heat input equal to or less than ten (10) MMBtu per hour, including two (2) direct-fired hot oil heaters installed in July 1982 and April 1991, respectively, each with a heat input rating of 1.4 MMBtu per hour, exhausting at stacks SV2 and SV3, respectively. This insignificant activity uses No. 2 oil as a back-up fuel;
- (b) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (c) paved and unpaved roads and parking lots with public access [326 IAC 6-4] [326 IAC 6-5];
- (d) one (1) QA lab and one (1) State lab;

- (e) other categories with emissions below insignificant thresholds:
 - (1) storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) lb per day of VOC including:
 - (A) one (1) liquid asphalt storage tank (ID #20A), constructed in January 1985, with a maximum storage capacity of 340,000 gallons, exhausting at one (1) stack, identified as SV4 [326 IAC 12 and 40 CFR 60, Subpart Kb];
 - (B) one (1) liquid asphalt storage tank (ID #20B), constructed in 1969, with a maximum storage capacity of 15,000 gallons, exhausting at one (1) stack, identified as SV5; and
 - (C) one (1) liquid asphalt storage tank (ID #20C), constructed in July 1992 each with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as SV6 [326 IAC 12 and 40 CFR 60, Subpart Kb].
 - (2) cutting, grinding and welding operations located in the shop [326 IAC 6-3-2].

The following additional insignificant activities have been installed during the 5-year permit term under FESOP F003-5405-03112, issued on December 13, 1996, and have been added to this FESOP approval:

- (a) one (1) liquid asphalt storage tank (ID #20D), constructed in 1997 with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as SV7 [326 IAC 12 and 40 CFR 60, Subpart Kb].

Existing Approvals

- (a) FESOP F003-5405-03112, issued on December 13, 1996; and expires on December 13, 2001, and
- (b) First Significant Modification SMF003-8363, issued on September 3, 1997.

All conditions from previous approvals were incorporated into this FESOP, except the following:

- (a) FESOP F003-5405-03112, issued on December 13, 1996; and expires on December 13, 2001:

The fuel oil usage limit at Condition D.1.5 (now renumbered as D.1.4) has been adjusted to reflect a 12-consecutive month compliance averaging period, rather than the existing 365 consecutive day compliance averaging period. The revision is made without a change to the source-wide FESOP applicability limits of 326 IAC 2-8.

Reason for Change: The source has requested in the FESOP renewal application that the usage limit be revised from the previous 365 consecutive day basis to the 12 consecutive month basis. The revised format is consistent with current IDEM, OAQ, FESOP permit approvals and does not affect source applicability with respect to 326 IAC 2-8, nor does it trigger any new requirements. These changes are made without replication herein.

(b) First Significant Modification SMF003-8363, issued on September 3, 1997:

D.1.1 Particulate Matter

State: Pursuant to 326 IAC 6-3 (Process Operations) and 326 IAC 2-2 and 40 CFR Part 52.21 (Prevention of Significant Deterioration), the particulate matter emissions from the drum-mixing/drying and batch-mixing/drying operations shall not exceed 66.3 pounds per hour and 59.5 pounds per hour, respectively, and shall not exceed 189 tons per year, combined.

Federal: Pursuant to 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the particulate matter emissions from the mixing and drying operations shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf).

Reason Not Incorporated: Condition D.1.1 (now renumbered as D.1.2) retains the Federal limitation, but deletes the State limitation since the aggregate mixing and drying operations are not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation is not consistent with applicable limitations in 326 IAC 6-1 or 326 IAC 12. Although the requirements of 326 IAC 6-1 are not applicable to this stationary source since it is not located in a specifically listed county, 326 IAC 12 (i.e., Subpart I) does apply. Since the PM limit established by Subpart I is less than the PM limit that would be established by 326 IAC 6-3-2 (see Appendix A, page 11 of 15), the limit pursuant to 326 IAC 6-3-2 does not apply. It is noted that a new PM emission limit is added to this permit as new Condition D.1.3, which will limit the source-wide potential to emit of PM to less than 250 tons per year such that the requirements of 326 IAC 2-2 (PSD) do not apply.

(c) First Significant Modification SMF003-8363, issued on September 3, 1997:

D.1.2 PM-10

Pursuant to 326 IAC 6-3 (Process Operations) and 326 IAC 2-8-4, PM-10 emissions including both filterable and condensable fractions from the drum-mixing/drying and batch-mixing/drying operations shall not exceed 66.3 pounds per hour and 59.5 pounds per hour, respectively, and shall not exceed 77 tons per year, combined.

Reason for Change: Although not eliminated, the PM-10 limit at Condition D.1.2 (now combined with new Condition D.1.3) has been adjusted to reflect 326 IAC 2-8 FESOP program limits of "less than" 100 tons; to remove reference to the non-applicable PM limits of 326 IAC 6-3 as described in paragraph (b) above (see Appendix A, page 12 of 15 for emission limit computation); and to include the PM-10 limit in the form of an emission factor, pounds of PM-10 emitted per ton of asphalt produced (i.e., lb PM-10 / ton asphalt).

(d) First Significant Modification SMF003-8363, issued on September 3, 1997:

D.1.5a Natural Gas Usage

The input of natural gas to the 96.8 million British thermal units per hour burner for the aggregate drum mix dryer and the 84.0 million British thermal units per hour burner for the aggregate rotary batch mix dryer shall be limited, in total, to 1393.0 million cubic feet per 365 day period, rolled on a daily basis. For purposes of determining compliance, every million cubic feet of landfill gas (LFG) burned shall be equivalent to 0.504 million cubic feet of natural gas and every 1000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.143 million cubic feet of natural gas, based on NO_x emissions, such that the total million cubic feet of natural gas and natural gas equivalent input does not exceed the limit specified. During the first 365 days of operation under this permit, the input of natural gas and natural gas equivalents shall be limited such that the total divided by the accumulated days of operation shall not exceed 3.81 million cubic feet per day. Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.5b Landfill Gas (LFG) Usage

The input of landfill gas (LFG) to the 96.8 million British thermal units per hour burner for the aggregate drum mix dryer shall be limited to 1157.5 million cubic feet per 365 day period, rolled on a daily basis. During the first 365 days of operation under this permit, the input of LFG shall be limited such that the total divided by the accumulated days of operation shall not exceed 3.17 million cubic feet per day. Therefore, the requirements of 326 IAC 2-7 will not apply.

Reason Not Incorporated: U.S. EPA has revised pollutant emission factors applicable to this source since the original FESOP issuance of December 4, 1996. This includes a reduction in the applicable gas combustion NO_x emission factors for the dryer burners (see TSD Appendix A for detailed emission calculations). The original FESOP used 140 pounds of NO_x per million cubic feet of natural gas (lb NO_x/MMcf) burned and this is now reduced to 100 lb NO_x/MMcf of natural gas burned. Full year firing on this gaseous fuel, or landfill gas, results in potential NO_x emissions for the source below 100 tons per year for either fuel. This, plus a separate limit on fuel oil firing (Condition D.1.4), which is primarily for SO₂ but which incidentally limits NO_x to below 100 tons per year for the source, makes Conditions D.1.5a and D.1.5b obsolete and they are removed (see page 7, 8 and 9 of 15, TSD Appendix A, for more detail on fuel usage limitations).

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on March 6, 2001.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A (15 pages) of this document for detailed emissions calculations.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

| Pollutant | Unrestricted Potential Emissions (tons/yr) |
|-----------------|---|
| PM | greater than 250 |
| PM-10 | greater than 250 |
| SO ₂ | greater than 250 |
| VOC | greater than 250 |
| CO | less than 100 |
| NO _x | greater than 100, less than 250 |

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

| HAP's | Unrestricted Potential Emissions (tons/yr) |
|----------------------|---|
| Acetaldehyde | less than 10 |
| Arsenic | less than 10 |
| Benzene | less than 10 |
| Beryllium | less than 10 |
| Cadmium | less than 10 |
| Chromium | less than 10 |
| Ethyl Benzene | less than 10 |
| Formaldehyde | less than 10 |
| Hexane | less than 10 |
| Hydrogen Chloride | less than 10 |
| Isooctane | less than 10 |
| Lead | less than 10 |
| Manganese | less than 10 |
| Mercury | less than 10 |
| Methyl Chloroform | less than 10 |
| Nickel | less than 10 |
| PAH (total) | less than 10 |
| Quinone | less than 10 |
| Toluene | less than 10 |
| Xylene | less than 10 |
| Miscellaneous Others | less than 10 |
| TOTAL | less than 25 |

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of particulate matter with aerodynamic diameter at or below 10 microns (PM-10), sulfur dioxide (SO₂), volatile organic compounds (VOC), and nitrogen oxides (NO_x) are each equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions
Since there is an applicable New Source Performance Standard that was in effect on August 7, 1980 for this source category, the fugitive particulate emissions are counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The source, issued a FESOP on December 13, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F003-5405-03112; issued on December 13, 1996).

| | Potential to Emit After Issuance (tons/year) | | | | | | |
|--|---|----------------------|-----------------|----------------------|------|-----------------|----------------------|
| Process/emission unit | PM | PM-10 | SO ₂ | VOC | CO | NO _x | HAPs |
| aggregate drying and burners ⁽¹⁾ | <80.4 ⁽³⁾ | <63.5 ⁽³⁾ | <93.9 | 23.1 | 66.5 | 94.4 | 8.4 (single HAP) |
| conveying & handling | 7.1 | 3.4 | - | - | - | - | - |
| unpaved roads | 161.7 ⁽³⁾ | 32.8 ⁽³⁾ | - | - | - | - | - |
| storage piles | 0.6 | 0.2 | - | - | - | - | - |
| cold mix storage | - | - | - | <76.8 ⁽⁴⁾ | - | - | - |
| hot oil heaters (as insignificant activities) | 0.2 | 0.1 | 6.1 | 0.1 | 1.0 | 1.8 | Negligible |
| Total PTE After Issuance | <250 | <100 | <100 | <100 | 67.6 | 96.2 | 22.8 (total HAPs) |
| 1. Includes fuel oil usage limit of Condition D.1.4 for burner operations. 2. Based on Condition D.1.3. 3. Potential to emit after controls. 4. Based on Condition D.3.1. | | | | | | | |

County Attainment Status

The source is located in Allen County.

| Pollutant | Status |
|-----------------|------------|
| PM-10 | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

There are no new federal rules applicable to the source during this FESOP review process. The applicability determination that follows is based on that conducted for original FESOP F003-5405-03112, issued on December 13, 1996.

- (a) This source is subject to the New Source Performance Standard (NSPS), 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility for both the drum-mix and batch-mix plants, as they were constructed after the rule applicability date of June 11, 1973. Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I), the source shall continue to comply as follows:

- (1) particulate matter emissions from the drum-mix and batch-mix asphalt plants shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf), and
- (2) the visible emissions from each plant shall not exceed 20 percent opacity.

This particulate matter emission limitation is equivalent to 20.8 pounds per hour (lb/hr) based on an exhaust rate of 92,000 actual cubic feet per minute (acfm) and an exhaust temperature of 300 degrees Fahrenheit (EF) for the drum-mix plant, and 12.2 lb/hr based on an exhaust rate of 54,000 acfm and an exhaust temperature of 250EF for the batch-mix plant.

The source will comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.04 gr/dscf (see Appendix A, page 11 of 15, for detailed calculations).

- (b) The 340,000 gallon liquid asphalt storage tank (ID #20A) and the 20,000 gallon liquid asphalt storage tanks (ID #20C and #20D) are subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) because the tanks were constructed after the July 23, 1984 applicability date with individual storage capacities greater than 40 cubic meters (10,570 gallons). However Tank 20A, with a storage capacity greater than 151 cubic meters (39,890 gallons), has a maximum true vapor pressure less than 3.5 kPa, and Tanks 20C and 20D, with storage capacities greater than 75 cubic meters (19,813 gallons) but less than 151 cubic meters, have a maximum true vapor pressure less than 15.0 kPa; therefore, the tanks are subject only to the record keeping requirements of 40 CFR 116b(a) and (b). Further, the 15,000 gallon liquid asphalt storage tank (ID #20B) is not subject to the requirements of 326 IAC 12, (40 CFR Parts 60.110, 110a - 115a or 110b - 117b, as Subparts K, Ka, and Kb, respectively) since the storage tank was constructed in 1969, before the earliest rule applicability date of June 11, 1973. Therefore, the source shall continue to comply as follows:

Pursuant to New Source Performance Standard (NSPS), 326 IAC 12 and 40 CFR Part 60.116 Subpart Kb, the Permittee shall maintain accessible records for the life of each volatile liquid storage tank. The records for each tank shall include:

- (1) The date the tank was manufactured,
- (2) The dimensions of the tank,

- (3) An analysis showing the capacity of the tank, and
- (4) The vapor pressure of the VOC stored; indicating the minimum true vapor pressure of the VOC is less than 3 kPa for tank #20A and less than 15 kPa for tanks #20C and #20D.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this source.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 20 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD)

Pursuant to 326 IAC 2-2 and 40 CFR 52.21 (PSD), this source, consisting of batch-mix and drum-mix plants respectively installed in 1989 and 1992, after the 326 IAC 2-2 August 7, 1980 rule applicability date, is still not considered a major source because it is not one of the 28 listed source categories and shall continue to be limited as follows. PM emissions from batch-mix and drum-mix aggregate mixing and drying shall be limited to 0.030 pounds of PM emitted per ton of asphalt produced, equivalent to less than 6.51 pounds per hour from the batch-mix aggregate dryer and less than 11.84 pounds per hour from the drum-mix aggregate dryer. PM-10 shall be limited as described under the *FESOP* section below. These limits are required to limit the source-wide potential to emit of PM and PM-10 to less than 250 and 100 tons per twelve (12) consecutive month period, respectively, such that the requirements of 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD) are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Allen County which is not one of the specifically listed counties, nor does this FESOP source have the potential to emit CO, VOC, NO_x, PM10 (including fugitive emissions), or SO₂ in amounts at or exceeding one-hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-6 still do not apply to the source.

326 IAC 2-8-4 (FESOP)

SO₂, NO_x, PM-10 and VOC emissions will need to be limited to make this a FESOP source.

The total fuel input of No. 2 fuel oil and its equivalents to the two (2) dryer burners will be limited to less than 2,681,943 gallons per twelve (12) consecutive month period. This fuel usage limit will keep source-wide SO₂ emissions to less than 100 tons per year.

The emissions of NO_x will not need to be limited separately. Emissions of NO_x from the potential use of: natural gas at the two (2) dryer burners will be 79.2 tons per year; landfill gas at the drum-mix dryer burner and limited fuel oil at the batch-mix dryer burner will be 84.5 tons per year; and landfill gas at the drum-mix dryer burner and natural gas at the batch-mix dryer burner will be 94.4 tons per year. Additionally, the amount of natural gas and landfill gas which could be burned as the equivalents of the No. 2 fuel oil usage limit exceeds the potential annual usage for both gaseous fuel types. As a result, total NO_x for the source is less than 100 tpy (including other facilities) and a separate limit for NO_x is not necessary nor created.

PM-10 emissions from batch-mix and drum-mix aggregate mixing and drying shall be limited to 0.023 pounds of PM10 emitted per ton of asphalt produced, equivalent to less than 5.15 pounds per hour from the batch-mix aggregate dryer and less than 9.36 pounds per hour from the drum-mix aggregate dryer. These limits are required to limit the source-wide potential to emit of PM-10 to less than 100 tons per twelve (12) consecutive month period, such that the requirements of 326 IAC 2-7 (Part 70) are not applicable.

Emulsified asphalt with VOC solvent liquid binder used in the production of cold mix asphalt shall be limited to less than 165.6 tons of VOC solvent per twelve (12) consecutive month period. This is equivalent to limiting the VOC emitted from solvent use to less than 76.8 tons per 12 consecutive month period, based on the following definition:

Emulsified asphalt with solvent - contains a maximum of 15 percent (%) of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, shall be 7% or less of the total emulsion by volume.

Compliance with this condition will limit source-wide VOC to less than 100 tons per 12 consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) are not applicable.

326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is subject to 326 IAC 6-5 for fugitive particulate matter emissions. Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the control plan submitted on March 11, 1996. The plan consists of, but is not limited to, applying water to unpaved roadways and open storage piles on an "as needed" basis. The source shall continue to comply with all dust abatement measures as presented in Appendix A to the FESOP.

State Rule Applicability - Individual Facilities

There are no new state rules applicable to the individual facilities during this FESOP review process. The applicability determination that follows is based on that conducted for original FESOP F003-5405-03112, issued on December 13, 1996.

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the PTE 10 tons per year of any HAP or 25 tons per year of the combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). No facilities with an uncontrolled PTE of 10 tons per year of any single HAP and 25 tons per year of the combination of HAPs have been constructed or reconstructed since July 27, 1997. Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) still do not apply to this source.

326 IAC 6-3-2 (Process Operations)

The aggregate mixing and drying operation is not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation established in the rule is not consistent with applicable limitations in 326 IAC 6-1 or 326 IAC 12. Although the requirements of 326 IAC 6-1 are not applicable to this stationary source since it is not located in a specifically listed county, 326 IAC 12 (i.e., Subpart I) does apply. Since the PM limit established by Subpart I is less than the PM limit that would be established by 326 IAC 6-3-2 (see Appendix A, page 11 of 15), the more stringent Subpart I limit applies and, therefore, 326 IAC 6-3-2 does not apply.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

As facilities with a potential to emit (PTE) of sulfur dioxide (SO₂) at or greater than 25 tons per year, the 84.0 MMBtu per hour and the 96.8 MMBtu per hour dryer burners are each subject to the requirements of 326 IAC 7-1.1. Therefore, pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), sulfur dioxide emissions from the 96.8 MMBtu per hour burner for the drum-mix dryer and the 84.0 MMBtu per hour burner for the batch-mix dryer each shall be limited to 0.5 pounds per MMBtu heat input. This is equivalent to a maximum fuel oil sulfur content of five one-hundredths percent (0.5%) while combusting No. 2 fuel oil in each burner (see Appendix A, page 11 of 15 for detailed calculations). The source will continue to comply with this rule by using No. 2 oil with a sulfur content of 0.5% or less and through record keeping.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

This source is subject to 326 IAC 7-1 for the 84.0 MMBtu per hour and the 96.8 MMBtu per hour dryers. As such, and pursuant to 326 IAC 7-2 (Compliance), the source shall demonstrate compliance with the 326 IAC 7-1 SO₂ emission limitation by recording, and submitting to the OAQ upon request, the information as specified, including fuel sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average. This source will continue to comply with this requirement.

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) penetrating prime coating

- (b) stockpile storage
- (c) application during the months of November, December, January, February and March.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

Pursuant to 326 IAC 8-4-1 (Applicability) and 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (39,000 gallons) containing VOC whose true vapor pressure is greater than 10.5 kPa (1.52 psi) shall comply with the requirements for external fixed and floating roof tanks and the specified record keeping and reporting requirements. The liquid asphalt storage tanks #20A (340,000 gallons), #20B (15,000 gallons), and #20C and #20D (20,000 gallons, each), as insignificant activities, are not subject to IAC 8-4-3 because their liquid asphalt contents have a true vapor pressure less than the rule applicability threshold of 10.5 kPa, and tanks #20B, #20C and #20D have capacities less than the rule applicability threshold capacity of 39,000 gallons.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

The requirements of this rule apply to stationary sources located in Lake, Porter, Clark and Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties; 100 tons per year in Clark and Floyd Counties; and to any coating facility that emits or has the potential to emit 10 tons per year or greater in Lake, Porter, Clark or Floyd County. This source is located in Allen County. Therefore, this rule is not applicable to this source.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. Stationary vessels with capacities less than 39,000 gallons are only subject to the reporting and record keeping requirements of the rule. Stationary storage vessels subject to any provision of 40 CFR Part 60.110b, New Source Performance Standard for Volatile Organic Liquid Storage, are exempt from this rule. The liquid asphalt storage tanks ID #20A, #20B, #20C and #20D, as insignificant activities, are not subject to IAC 8-9 because they are stationary vessels that are not located in the specified counties as listed in 326 IAC 8-9-1.

Testing Requirements

All testing requirements from previous approvals were incorporated into this FESOP. This source is subject to 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities), and shall comply with the particulate matter (PM) and opacity compliance testing requirements of the rule for both the drum-mix and batch-mix plants. OAQ has also required PM-10 testing to demonstrate FESOP compliance.

Previous stack tests to comply with this requirement were conducted as follows:

- (a) PM and PM-10, and opacity testing was performed in September 1999.

A new opacity testing requirement has been incorporated into the existing testing condition (previously D.1.7, now re-numbered as D.1.8) of this FESOP, and the condition has been re-written for greater clarity as follows (new language in bold and stricken language with a line through it):

D.1.78 ~~Particulate Matter and PM10~~ Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-

11]

During the period between 30 to 36 months after issuance of this permit, the Permittee shall perform **the following to demonstrate compliance with Conditions D.1.2 and D.1.3 for both the drum-mix and batch-mix aggregate dryers:**

- (a) PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 **for PM and methods**, ~~17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202,~~ as approved by the Commissioner **for PM-10**. ~~This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.~~ PM-10 includes filterable and condensable PM-10.
- (b) **Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of Condition D.1.2.**

This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

Justification for new testing requirement: The source is subject to the NSPS requirements of 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities). As an affected source, compliance testing for opacity is required pursuant to the NSPS, but was not included in the testing condition original FESOP, even though an opacity test was performed in September 1999. This change completes the NSPS testing requirement.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP, except the frequencies for visible emission notations and baghouse pressure drop readings have been changed to once per shift.

Reason changed: Compliance monitoring conditions are in the permit in order to ensure continuous compliance with the requirements. Baghouse failure can occur suddenly; therefore monitoring of baghouse operational parameters should be more frequent than weekly or even daily in such cases where a source operates more than one shift per day. The OAQ believes that changing visible emissions notations to once per operating shift is a reasonable requirement. Therefore, the requirements to perform visible emissions notations have been changed from weekly to once per shift. This change likewise applies to the pressure drop readings. The compliance monitoring requirements applicable to this source are as follows:

1. The mixing and drying operation has applicable compliance monitoring conditions as specified below:
 - (a) Visible emissions notations of the drum-mix and batch-mix aggregate dryer/burner baghouse stack exhausts, and the conveyors, transfer points, aggregate storage piles, and unpaved roads, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee will record whether emissions are normal or abnormal.
 - (b) The Permittee shall record the total static pressure drop across each baghouse controlling the respective drum-mix and batch-mix aggregate dryers, at least once per shift when the respective aggregate dryer is in operation and venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each baghouse shall be maintained within the range of 2.0 to 10.0 inches of water or a range established during the latest stack test.
 - (c) An inspection shall be performed each calendar quarter of all bags controlling the drum-mix and batch-mix aggregate mixing and drying operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

These monitoring conditions are necessary because the baghouses for the aggregate mixing and drying process must operate properly to ensure compliance with 326 IAC 12, 40 CFR 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this stationary hot mix asphalt plant shall be subject to the conditions of the attached proposed FESOP No. F003-14035-03112.

Company Name:
Plant Location:
County:
Date:
Permit Reviewer:

Brooks Construction Company, Inc.
3930 Hardrock Rd., Fort Wayne, IN 46809
Allen
September 1, 2001
Michael Hirtler/EVP

**** general facility information ****

This source has the capability to operate a 400 ton/hr drum mix dryer with a dryer burner rated at 96.8 MMBtu/hr and a 220 ton/hr batch dryer with a dryer burner rated at 84.0 MMBtu/hr.

**** hot oil heaters****

The following calculations determine the amount of emissions created by combustion of natural gas from hot oil heater, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, and 1.4-2.

| Criteria Pollutant: | 1.4 MMBtu/hr | x | 8,760 hr/yr | x | Ef (lb/1,000 MMBtu) | = | (ton/yr) |
|---------------------|-----------------|---------|-------------|---|---------------------|---|-------------|
| | 1000 MMBtu/MMcf | | x | | 2,000 lb/ton | | |
| P M: | 7.6 | lb/MMcf | = | | | | 0.05 ton/yr |
| P M-10: | 7.6 | lb/MMcf | = | | | | 0.05 ton/yr |
| S O 2: | 0.6 | lb/MMcf | = | | | | 0.00 ton/yr |
| N O x: | 100.0 | lb/MMcf | = | | | | 0.61 ton/yr |
| V O C: | 5.5 | lb/MMcf | = | | | | 0.03 ton/yr |
| C O: | 84.0 | lb/MMcf | = | | | | 0.52 ton/yr |

The following calculations determine the amount of emissions created by combustion of 0.5 % sulfur from hot oil heater, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-3, and 1.3-7.

| Criteria Pollutant: | 1.4 MMBtu/hr | x | 8,760 hr/yr | x | Ef (lb/1,000 gal) | = | (ton/yr) |
|---------------------|---------------------|--------------|-------------|---|-------------------|---|-------------|
| | 140 MMBtu/1,000 gal | | x | | 2,000 lb/ton | | |
| P M: | 2.0 | lb/1,000 gal | = | | | | 0.09 ton/yr |
| P M-10: | 1.1 | lb/1,000 gal | = | | | | 0.05 ton/yr |
| S O 2: | 70.0 | lb/1,000 gal | = | | | | 3.07 ton/yr |
| N O x: | 20.0 | lb/1,000 gal | = | | | | 0.88 ton/yr |
| V O C: | 0.34 | lb/1,000 gal | = | | | | 0.01 ton/yr |
| C O: | 5.0 | lb/1,000 gal | = | | | | 0.22 ton/yr |

Total maximum potential emissions from the hot oil heaters due to fuel combustion are the following:
The source has two (2) 1.4-mmBtu/hr heaters, so the above emission rates have been doubled:

| Criteria Pollutant: | | Worst Case Fuel |
|---------------------|-------------|-----------------|
| P M: | 0.18 ton/yr | #2 Fuel Oil |
| P M-10: | 0.09 ton/yr | #2 Fuel Oil |
| S O 2: | 6.13 ton/yr | #2 Fuel Oil |
| N O x: | 1.75 ton/yr | #2 Fuel Oil |
| V O C: | 0.07 ton/yr | Natural Gas |
| C O: | 1.03 ton/yr | Natural Gas |

**** drum-mix aggregate dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, and 1.4-2.

| Criteria Pollutant: | $\frac{96.8 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{1000 \text{ MMBtu/MMcf}}$ | $* \text{Ef (lb/MMcf)} = (\text{ton/yr})$ $* 2,000 \text{ lb/ton}$ |
|---------------------|---|---|
| P M: | 7.6 lb/MMcf = | 3.22 ton/yr |
| P M-10: | 7.6 lb/MMcf = | 3.22 ton/yr |
| S O 2: | 0.6 lb/MMcf = | 0.25 ton/yr |
| N O x: | 100.0 lb/MMcf = | 42.40 ton/yr |
| V O C: | 5.5 lb/MMcf = | 2.33 ton/yr |
| C O: | 84.0 lb/MMcf = | 35.61 ton/yr |

The following calculations determine the amount of emissions created by landfill gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and information supplied by EMCON (Andover, MA).

| Criteria Pollutant: | $\frac{96.8 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{504.5 \text{ MMBtu/MMcf}}$ | $* \text{Ef (lb/MMcf)} = (\text{ton/yr})$ $* 2,000 \text{ lb/ton}$ |
|---------------------|--|---|
| P M: | 46.2 lb/MMcf = | 38.83 ton/yr (35.27 ton/yr) * |
| P M-10: | 46.2 lb/MMcf = | 38.83 ton/yr (35.27 ton/yr) * |
| S O 2: | 6.2 lb/MMcf = | 5.21 ton/yr (4.71 ton/yr) * |
| N O x: | 70.6 lb/MMcf = | 59.33 ton/yr (57.64 ton/yr) * |
| V O C: | 0.8 lb/MMcf = | 0.67 ton/yr (0.84 ton/yr) * |
| C O: | 17.7 lb/MMcf = | 14.88 ton/yr (16.95 ton/yr) * |

* The first value reflects total landfill gas combustion; however, this fuel, when used, must be co-fired with natural gas. The maximum landfill/natural gas ratio is 90% landfill gas/10% natural gas, which is reflected in parentheses.

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.5 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-3, and 1.3-7.

| Criteria Pollutant: | $\frac{96.8 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{140,000 \text{ Btu/gal}}$ | $* \text{Ef (lb/1,000 gal)} = (\text{ton/yr})$ $* 2,000 \text{ lb/ton}$ |
|---------------------|---|--|
| P M: | 2.0 lb/1000 gal = | 6.06 ton/yr |
| P M-10: | 1.1 lb/1000 gal = | 3.27 ton/yr |
| S O 2: | 70.0 lb/1000 gal = | 211.99 ton/yr |
| N O x: | 20.0 lb/1000 gal = | 60.57 ton/yr |
| V O C: | 0.34 lb/1000 gal = | 1.03 ton/yr |
| C O: | 5.0 lb/1000 gal = | 15.14 ton/yr |

The maximum potential emissions from the 96.8 mmBtu/hr aggregate dryer burner due to fuel combustion:

| Criteria Pollutant: | Worst Case Fuel |
|---------------------|---------------------------------|
| P M: | 35.27 ton/yr Landfill Gas |
| P M-10: | 35.27 ton/yr Landfill Gas |
| S O 2: | 211.99 ton/yr No. 2 Fuel Oil |
| N O x: | 60.57 ton/yr No. 2 Fuel Oil |
| V O C: | 2.33 ton/yr Natural Gas |
| C O: | 35.61 ton/yr Natural Gas |

**** batch mix aggregate dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, and 1.4-2.

Criteria Pollutant: $\frac{84 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{1000 \text{ MMBtu/MMcf}} * \text{Ef (lb/MMcf)} = (\text{ton/yr})$

| | | |
|----------------|-----------------|---------------------|
| P M: | 7.6 lb/MMcf = | 2.80 ton/yr |
| P M-10: | 7.6 lb/MMcf = | 2.80 ton/yr |
| S O 2: | 0.6 lb/MMcf = | 0.22 ton/yr |
| N O x: | 100.0 lb/MMcf = | 36.79 ton/yr |
| V O C: | 5.5 lb/MMcf = | 2.02 ton/yr |
| C O: | 84.0 lb/MMcf = | 30.91 ton/yr |

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.5 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-3, and 1.3-7.

Criteria Pollutant: $\frac{84 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{140,000 \text{ Btu/gal} * 2,000 \text{ lb/ton}} * \text{Ef (lb/1,000 gal)} = (\text{ton/yr})$

| | | |
|----------------|--------------------|----------------------|
| P M: | 2.0 lb/1000 gal = | 5.26 ton/yr |
| P M-10: | 1.1 lb/1000 gal = | 2.84 ton/yr |
| S O 2: | 70.0 lb/1000 gal = | 183.96 ton/yr |
| N O x: | 20.0 lb/1000 gal = | 52.56 ton/yr |
| V O C: | 0.34 lb/1000 gal = | 0.89 ton/yr |
| C O: | 5.0 lb/1000 gal = | 13.14 ton/yr |

The maximum potential emissions from the 84.0 mmBtu/hr aggregate dryer burner due to fuel combustion:

| Criteria Pollutant: | | Worst Case Fuel |
|----------------------------|----------------------|------------------------|
| P M: | 5.26 ton/yr | No. 2 Fuel Oil |
| P M-10: | 2.84 ton/yr | No. 2 Fuel Oil |
| S O 2: | 183.96 ton/yr | No. 2 Fuel Oil |
| N O x: | 52.56 ton/yr | No. 2 Fuel Oil |
| V O C: | 2.02 ton/yr | Natural Gas |
| C O: | 30.91 ton/yr | Natural Gas |

Total maximum potential emissions from the aggregate dryer burners due to fuel combustion are the following:

| | |
|----------------------------|----------------------|
| Criteria Pollutant: | |
| P M: | 40.52 ton/yr |
| P M-10: | 38.10 ton/yr |
| S O 2: | 395.95 ton/yr |
| N O x: | 113.13 ton/yr |
| V O C: | 4.36 ton/yr |
| C O: | 66.52 ton/yr |

**** aggregate drying: batch-mix plant ****

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-1 and 11.1-8 for a batch mix dryer which has the capability of combusting either fuel oil or natural gas:

$$\text{Pollutant: } \frac{\text{Ef}}{2,000} \frac{\text{lb/ton}}{\text{lb/ton}} \times \frac{220}{\text{ton/hr}} \times \frac{8,760}{\text{hr/yr}}$$

Criteria Pollutant:

| | | | |
|----------------|---------|----------|----------------------|
| P M: | 32 | lb/ton = | 30,835 ton/yr |
| P M-10: | 4.5 | lb/ton = | 4,336 ton/yr |
| VOC: | 7.6E-03 | lb/ton = | 7 ton/yr |

The VOC emission factor represents the sum of the HAP emission factors from the dryer which were assumed to be VOC.

**** aggregate drying: drum-mix plant ****

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-3 and 11.1-8 for a drum mix dryer which has the capability of combusting either fuel oil or natural gas:

$$\text{Pollutant: } \frac{\text{Ef}}{2,000} \frac{\text{lb/ton}}{\text{lb/ton}} \times \frac{400}{\text{ton/hr}} \times \frac{8,760}{\text{hr/yr}}$$

Criteria Pollutant:

| | | | |
|----------------|---------|----------|----------------------|
| P M: | 28 | lb/ton = | 49,056 ton/yr |
| P M-10: | 6.5 | lb/ton = | 11,388 ton/yr |
| VOC: | 8.7E-03 | lb/ton = | 15 ton/yr |

The VOC emission factor represents the sum of the HAP emission factors from the dryer which were assumed to be VOC.

Total maximum potential to emit from the aggregate drying (2 dryers combined) are the following:

Criteria Pollutant:

| | |
|----------------|----------------------|
| P M: | 79,891 ton/yr |
| P M-10: | 15,724 ton/yr |
| V O C: | 23 ton/yr |

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factors for calculating PM/PM10 emissions are calculated as follows:

PM/PM10 Emissions:

$$\begin{aligned} E &= k \cdot (0.0032) \cdot ((U/5)^{1.3}) / ((M/2)^{1.4}) \\ &= 2.62E-03 \text{ lb PM/ton} \\ &= 1.24E-03 \text{ lb PM-10/ton} \end{aligned}$$

where k = 0.74 (particle size multiplier for <30um)
0.35 (particle size multiplier for <10um)

U = 12 mph mean wind speed
M = 4.2 material moisture content (%)

$$\frac{620 \text{ ton/hr} \times 8,760 \text{ hr/yr} \times E_f \text{ (lb/ton of mat)}}{2,000 \text{ lb/ton}} = \text{ (ton/yr)}$$

Total PM Emissions: 7.10 tons/yr
Total PM10 Emissions: 3.36 tons/yr

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and AP-42, Section 13.2.2.2.

I. Front End Loader

$$74 \text{ trip/hr} \times 0.076 \text{ mile/trip} \times 2 \text{ (round trip)} \times 8,760 \text{ hr/yr} = 98,532 \text{ mile/yr}$$

$$\begin{aligned} E_f &= k \cdot [(s/12)^a] \cdot [(W/3)^b] / [(M_{dry}/0.2)^c] \cdot [(365-p)/365] \cdot (S/15) \\ &= 6.57 \text{ lb PM/mile} \\ &= 1.33 \text{ lb PM-10/mile} \end{aligned}$$

where k = 10 (particle size multiplier, PM30) (k= 2.6 for PM10)
s = 4.8 mean % silt content of unpaved plant roads
a = 0.8 Constant for PM30/PM-10
W = 36 tons, average vehicle weight
b = 0.5 Constant for PM30 (b = 0.4 for PM10)
Mdry = 0.2 surface material moisture content, % (default 0.2 (dry conditions) when using rainfall parameter)
c = 0.4 Constant for PM30 (c = 0.3 for PM10)
p = 125 number of days with at least 0.01 in of precipitation per year
S = 9 mph speed limit

PM : $\frac{6.57 \text{ lb/mi} \times 98532.5 \text{ mi/yr}}{2000 \text{ lb/ton}} = 323.49 \text{ tons/yr}$

PM-10 : $\frac{1.33 \text{ lb/mi} \times 98532.5 \text{ mi/yr}}{2000 \text{ lb/ton}} = 65.60 \text{ tons/yr}$

**** storage ****

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

| Material | Silt Content (wt %) | Pile Size (acres) | Storage Capacity (tons) | P M Emissions tons/yr | P M-10 Emissions tons/yr |
|--------------|------------------------|----------------------|----------------------------|--------------------------|-----------------------------|
| Sand | 1.1 | 1.033 | 67,500 | 0.24 | 0.08 |
| Stone | 1.0 | 1.263 | 33,000 | 0.27 | 0.09 |
| Slag | 1.0 | 0.115 | 1,000 | 0.02 | 0.01 |
| RAP | 0.8 | 0.430 | 18,750 | 0.07 | 0.03 |
| Total | | | | 0.60 | 0.21 |

Sample Calculation:

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$$

$$= 1.27 \text{ lb/acre/day}$$

where s = 1.1 % silt

p = 125 days of rain greater than or equal to 0.01 inches

f = 15 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = \frac{E_f \cdot sc \cdot (20 \text{ cuft/ton}) \cdot (365 \text{ day/yr})}{(2.000 \text{ lb/ton}) \cdot (43,560 \text{ sqft/acre}) \cdot (30 \text{ ft for sand, 12 ft for stone and slag, \& 20 ft for RAP})}$$

where sc = 67,500 tons storage capacity

PM = 0.24 tons/yr

P M-10: 35% of PM = 0.08 tons/yr

****cold mix VOC storage emissions ****

The following calculations determine the amount of VOC emissions created by the application of emulsified asphalt with 1.5% fuel oil in emulsified asphalt mix, based on 8,760 hours of operation.

VOC Emission Factor = 0.105% weight flash-off of cold mix

Potential Throughput (tons/yr) = 3,504,000 tons/yr stockpile mix

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * wt percent flash-off

Potential VOC Emissions = 3,679 tons/yr

* Weight percent flash-off is based on a 7.0 weight percent of emulsified asphalt mix in stockpile mix.

**** summary of source emissions before controls ****

Criteria Pollutants:

| | |
|----------------|--|
| P M: | 79,940 ton/yr |
| P M-10: | 15,766 ton/yr |
| S O 2: | 402 ton/yr |
| N O x: | 115 ton/yr |
| C O: | 68 ton/yr |
| V O C: | 3,706 ton/yr (includes volatile organic HAPs from aggregate drying operation) |

**** source emissions after limitations and controls ****

In order to qualify for the FESOP program, this source must limit PM-10, SO₂, NO_x, and VOC emissions to less than 100 tons per year.
* Emissions of PM and PM-10 from aggregate drying operations are controlled at 99.9% control efficiency.

**** source usage limitations ****

Fuel Usage Limitations:

Total Fuel at Drum-Mix & Batch Plant Aggregate Dryer Burners - NO_x Emissions:

Natural Gas Firing

| | | | |
|------------------------------------|----------------------------------|-------------------------------|---|
| 79.19 PTE NO _x (tpy) * | 2,000 lbs/ton = | ***** lbs NO _x /yr | |
| 158,380.80 lbs NO _x /yr | 100.00 lbs NO _x /MMcf | 1,583.81 MMcf/yr (potential) | |
| 1,583.81 MMcf/yr * | 98.25 tons/yr / | 79.19 tons/yr = | 0.0 MMcf/yr FESOP limit (no limit necessary) |

No. 2 Oil Firing

| | | | |
|------------------------------------|-----------------------------------|-------------------------------|-----------------------------|
| 113.13 PTE NO _x (tpy) * | 2,000 lbs/ton = | ***** lbs NO _x /yr | |
| 226,258.29 lbs NO _x /yr | 20.00 lbs NO _x /kqal = | 11,312.91 kqal/yr (potential) | |
| 11,312.91 kqal/yr * | 98.25 tons/yr / | 113.13 tons/yr = | 9,824.8 kqal/yr FESOP limit |

*Landfill Gas Firing at the Drum Mix Burner (Plus Potential Natural Gas Usage in Batch Plant Burner)**

| | | | |
|------------------------------------|---------------------------------|-------------------------------|---|
| 57.64 PTE NO _x (tpy) * | 2,000 lbs/ton = | ***** lbs NO _x /yr | |
| 115,278.27 lbs NO _x /yr | 70.60 lbs NO _x /MMcf | 1,632.84 MMcf/yr (potential) | |
| 1,632.84 MMcf/yr * | 63.21 tons/yr / | 57.64 tons/yr = | 0.0 MMcf/yr FESOP limit (no limit necessary) |

* This results in greater NO_x emissions than limited No. 2 oil use at the batch plant.

Total Fuel at Drum-Mix & Batch Plant Aggregate Dryer Burners - SO₂ Emissions:

Natural Gas Firing

| | | | |
|----------------------------------|--------------------------------|--------------------------------|---|
| 0.48 PTE SO ₂ (tpy) * | 2,000 lbs/ton = | 950.28 lbs SO ₂ /yr | |
| 950.28 lbs SO ₂ /yr | 0.60 lbs SO ₂ /MMcf | 1,583.81 MMcf/yr (potential) | |
| 1,583.81 MMcf/yr * | 93.87 tons/yr / | 0.48 tons/yr = | 0.0 MMcf/yr FESOP Limit (no limit necessary) |

No. 2 Oil Firing

| | | | |
|------------------------------------|-----------------------------------|-------------------------------|-----------------------------|
| 395.95 PTE SO ₂ (tpy) * | 2,000 lbs/ton = | ***** lbs SO ₂ /yr | |
| 791,904.00 lbs SO ₂ /yr | 70.00 lbs SO ₂ /kqal = | 11,312.91 kqal/yr (potential) | |
| 11,312.91 kqal/yr * | 93.87 tons/yr / | 395.95 tons/yr = | 2,681.9 kqal/yr FESOP Limit |

Fuel Equivalence:

Most restrictive No. 2 oil usage = 2,681.9 kgal/yr
Most restrictive natural gas usage = 1,583.8 MMcf/yr (THIS IS THE POTENTIAL GAS USAGE - NO LIMIT NECESSARY)
Most restrictive landfill gas usage = 1,632.8 MMcf/yr (THIS IS THE POTENTIAL GAS USAGE - NO LIMIT NECESSARY)

Fuel equivalence is therefore determined from the limiting pollutant, SO₂, as follows:

| | | |
|--|------|---|
| $\frac{0.6 \text{ lb/MMcf}}{70.0 \text{ lb/1000 gal}} =$ | 8.6 | gallons per million cubic feet (MMcf) natural gas (i.e., every 1 MMcf natural gas burned is equivalent to 8.6 gallons of oil burned, based on SO ₂ emissions) |
| $\frac{6.2 \text{ lb/MMcf}}{70.0 \text{ lb/1000 gal}} =$ | 88.6 | gallons per million cubic feet (MMcf) landfill gas (i.e., every 1 MMcf landfill gas burned is equivalent to 88.6 gallons of oil burned, based on SO ₂ emissions) |

Applying the equivalency ratios, the amount of equivalent fuels that could be burned are:

| | | |
|-------------------|--------------------|---|
| 2,681.9 kgal/yr / | 8.6 gallon/MMcf = | 312,893.3 MMcf/year equivalent as natural gas |
| 2,681.9 kgal/yr / | 88.6 gallon/MMcf = | 30,280.0 MMcf/year equivalent as landfill gas |

These equivalent fuel usage amounts exceed the respective potential total natural gas and landfill gas usages in the two dryer burners. Since the potential fuel usages cannot be exceeded, the source-wide potential to emit NO_x remains below 100 tpy (including other facilities) under each equivalent fuel use scenario, and a separate NO_x limit is not created.

**** emissions after fuel usage limitations ****

Batch-Mix - Natural Gas:

| |
|---|
| $\frac{84.0 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}}{1000 \text{ Btu/cf} \times 2,000 \text{ lb/ton}} \times \text{Ef (lb/MMcf)} = (\text{ton/yr})$ |
|---|

| | | |
|----------------|-----------------|---------------------|
| P M: | 7.6 lb/MMcf = | 2.80 ton/yr |
| P M-10: | 7.6 lb/MMcf = | 2.80 ton/yr |
| S O 2: | 0.6 lb/MMcf = | 0.22 ton/yr |
| N O x: | 100.0 lb/MMcf = | 36.79 ton/yr |
| V O C: | 5.5 lb/MMcf = | 2.02 ton/yr |
| C O: | 84.0 lb/MMcf = | 30.91 ton/yr |

Drum-Mix - Natural Gas:

| |
|---|
| $\frac{96.8 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}}{1000 \text{ Btu/cf} \times 2,000 \text{ lb/ton}} \times \text{Ef (lb/MMcf)} = (\text{ton/yr})$ |
|---|

| | | |
|----------------|-----------------|---------------------|
| P M: | 7.6 lb/MMcf = | 3.22 ton/yr |
| P M-10: | 7.6 lb/MMcf = | 3.22 ton/yr |
| S O 2: | 0.6 lb/MMcf = | 0.25 ton/yr |
| N O x: | 100.0 lb/MMcf = | 42.40 ton/yr |
| V O C: | 5.5 lb/MMcf = | 2.33 ton/yr |
| C O: | 84.0 lb/MMcf = | 35.61 ton/yr |

Drum-Mix - Landfill Gas: $\frac{96.8 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{504.5 \text{ Btu/cf} * 2,000 \text{ lb/ton}} * \text{Ef (lb/MMcf)} = (\text{ton/yr})$

| | | | | |
|----------------|----------------|---------------------|---|------------------------|
| P M: | 46.2 lb/MMcf = | 38.83 ton/yr | (| 35.27 ton/yr) * |
| P M-10: | 46.2 lb/MMcf = | 38.83 ton/yr | (| 35.27 ton/yr) * |
| S O 2: | 6.2 lb/MMcf = | 5.21 ton/yr | (| 4.71 ton/yr) * |
| N O x: | 70.6 lb/MMcf = | 59.33 ton/yr | (| 57.64 ton/yr) * |
| V O C: | 0.8 lb/MMcf = | 0.67 ton/yr | (| 0.84 ton/yr) * |
| C O: | 17.7 lb/MMcf = | 14.88 ton/yr | (| 16.95 ton/yr) * |

* The first value reflects total landfill gas combustion; however, this fuel, when used, must be co-fired with natural gas. The maximum landfill/natural gas ratio is 90% landfill gas/10% natural gas, which is reflected in parentheses.

No. 2 Distillate Oil: $< \frac{2,681,943 \text{ gal/yr}}{2,000 \text{ lb/ton}} * \text{Ef (lb/1,000 gal)} = (\text{ton/yr})$

| | | |
|----------------|--------------------|---------------------|
| P M: | 2.0 lb/1000 gal = | 2.68 ton/yr |
| P M-10: | 1.1 lb/1000 gal = | 1.45 ton/yr |
| S O 2: | 70.0 lb/1000 gal = | 93.87 ton/yr |
| N O x: | 20.0 lb/1000 gal = | 26.82 ton/yr |
| V O C: | 0.34 lb/1000 gal = | 0.46 ton/yr |
| C O: | 5.0 lb/1000 gal = | 6.70 ton/yr |

The maximum limited potential to emit due to all sources of fuel combustion are the following:

| Criteria Pollutant: | | Worst Case Fuel |
|---------------------|---------------------|--------------------------|
| P M: | 38.06 ton/yr | Landfill Gas/Natural Gas |
| P M-10: | 38.06 ton/yr | Landfill Gas/Natural Gas |
| S O 2: < | 93.87 ton/yr | No. 2 Fuel Oil |
| N O x: | 94.43 ton/yr | Landfill Gas/Natural Gas |
| V O C: | 4.36 ton/yr | Natural Gas |
| C O: | 66.52 ton/yr | Natural Gas |

****cold mix VOC storage limitations ****

The following calculations determine the amount of VOC emissions created by the application of liquid binder for cold mix stockpiles, based on the source's use of emulsified asphalt with solvent as the liquid binder type. Emulsified asphalt with solvent is defined with the following properties:

| | |
|---|------------------------|
| Maximum weight % of VOC solvent in bir | 15.0% |
| Weight % VOC solvent in binder that eva | 46.4% |
| Volume of diluent allowed = | 7% (per 326 IAC 8-5-2) |

In order to qualify for the FESOP program, this source must limit VOC emissions to less than 100 tons per year. Deducting the VOC emitted from other activities, VOC solvent usage as diluent in the liquid binder used in the production of cold mix asphalt from the plant shall be limited to **165.59 tons of VOC emitted per twelve (12) consecutive month period.** This is equivalent to limiting the usage of emulsified asphalt with solvent liquid binder to less than **76.83 tons of VOC solvent per 12 consecutive month period, based on 46.4 percent (%)** by weight of the VOC solvent in the liquid blend evaporating.

**** source emissions after controls ****

| | | | | |
|-----------------------|-----------------|-------------|-------------------------|----------------|
| hot oil heater: | | nonfugitive | | |
| P M: | 0.18 ton/yr x | 100.00% | emitted after controls | 0.18 ton/yr |
| P M-10: | 0.09 ton/yr x | 100.00% | emitted after controls | 0.09 ton/yr |
| aggregate drying: | | nonfugitive | | |
| P M: | 79,929 ton/yr x | 0.10% | emitted after controls | 80.37 ton/yr * |
| P M-10: | 15,762 ton/yr x | ERR | * emitted after control | 63.53 ton/yr * |
| conveying & handling: | | fugitive | | |
| P M: | 7.10 ton/yr x | 50% | emitted after controls | 3.55 ton/yr |
| P M-10: | 3.36 ton/yr x | 50% | emitted after controls | 1.68 ton/yr |
| unpaved roads: | | fugitive | | |
| P M: | 323.49 ton/yr x | 50% | emitted after controls | 161.74 ton/yr |
| P M-10: | 65.60 ton/yr x | 50% | emitted after controls | 32.80 ton/yr |
| storage piles: | | fugitive | | |
| P M: | 0.60 ton/yr x | 50% | emitted after controls | 0.30 ton/yr |
| P M-10: | 0.21 ton/yr x | 50% | emitted after controls | 0.11 ton/yr |
| cold mix VOC storage: | | fugitive | | |
| VOC: | 76.83 ton/yr x | 100.00% | emitted after controls | 76.83 ton/yr |

* Based on limited emission calculations shown on page 12 of 15.

**** summary of source emissions after limitations/controls ****

Criteria Pollutant:

| | Non-Fugitive | Fugitive | Total |
|----------|----------------|----------------|---------------|
| PM: | 80.55 ton/yr | 165.60 ton/yr | 246.15 ton/yr |
| PM-10: | 63.63 ton/yr | 34.59 ton/yr | 98.21 ton/yr |
| S O 2: < | 100.00 ton/yr | 0.00 ton/yr < | 100.00 ton/yr |
| N O x: | 96.18 ton/yr | 0.00 ton/yr | 96.18 ton/yr |
| V O C: | 23.17 ton/yr < | 76.83 ton/yr < | 100.00 ton/yr |
| C O: | 67.55 ton/yr | 0.00 ton/yr | 67.55 ton/yr |

**** miscellaneous ****

326 IAC 7 Compliance Calculations:

The following calculations determine the maximum sulfur content of distillate fuel oil allowable by 326 IAC 7:

$$\frac{140,000 \text{ Btu/gal}}{142 \text{ lb/1000 gal}} \times \frac{0.5 \text{ lb/MMBtu}}{142 \text{ lb/1000 gal}} = 0.5\%$$

Sulfur content must be less than or eq 0.5 % to comply with 326 IAC 7.

326 IAC 6-3-2 Compliance Calculations:

The following calculations determine compliance with 326 IAC 6-3-2 for process weight rate in excess of 30 ton/hr:

220 Tons per Hour Drum-Mix Plant:

$$\text{limit} = 55 * (220^{0.11}) - 40 = 59.55 \text{ lb/hr or } 260.82 \text{ ton/yr}$$

440 Tons per Hour Batch Plant:

$$\text{limit} = 55 * (400^{0.11}) - 40 = 66.31 \text{ lb/hr or } 290.45 \text{ ton/yr}$$

Since these emission limits each exceed the respective Subpart I allowable PM emission limits (see below), the requirements of 326 IAC 6-3-2 shall not apply, pursuant to 326 IAC 6-3-1(b). The source shall comply with the PM limits pursuant to 40 CFR 60, Subpart I, as the more stringent limits. Additionally, as presented below, PM emitted from the aggregate drying at source shall be limited such that the source-wide PTE PM is less than 250 tons per year and therefore, the requirements of 326 IAC 2-2 (PSD) shall not apply. Compliance with this requirement shall also result in compliance with the limits of Subpart I.

40 CFR Part 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) Compliance Calculations:

The following calculations determine compliance with NSPS, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

*** SV1B: Batch Dryer ***

$$\frac{30.84 \text{ ton/year}}{35,640 \text{ dscf/min}} \times \frac{2,000 \text{ lb/ton}}{525,600 \text{ min/year}} \times \frac{7,000 \text{ gr}}{1} = 0.023 \text{ gr/dscf (will comply)}$$

Allowable particulate emissions under NSPS (0.04 gr/ds: 53.52 tons per year, or: 12.22 lb/hr

*** SV1D: Drum-mix Dryer ***

$$\frac{49.06 \text{ ton/year}}{60,720 \text{ dscf/min}} \times \frac{2,000 \text{ lb/ton}}{525,600 \text{ min/year}} \times \frac{7,000 \text{ gr}}{1} = 0.022 \text{ gr/dscf (will comply)}$$

Allowable particulate emissions under NSPS (0.04 gr/ds: 91.18 tons per year, or: 20.82 lb/hr

Note:

$$\text{SCFM} = 54,000 \text{ acfm} * (460 + 68) * (1 - 0.05) / (460 + 300) \\ = 35,640 \text{ scfm (assumed 5\% moisture)}$$

$$\text{SCFM} = 92,000 \text{ acfm} * (460 + 68) * (1 - 0.05) / (460 + 300) \\ = 60,720 \text{ scfm (assumed 5\% moisture)}$$

PSD PM Emission Limit for Drum-Mix & Batch Plant Aggregate Dryers:

Source-wide emissions of PM must be less than 250 tons per year such that the requirements of 326 IAC 2-2 (PSD) are not applicable. Therefore, PM from the 2 aggregate dryers shall be limited as follows:

$$250 \text{ tons PM/yr} - 169.63 \text{ tons PM from other sources} = < 80.37 \text{ ton/yr} = 18.35 \text{ lbs/hr}$$

$$\text{Total PM from aggregate dryers control} = 80.37 \text{ tons/yr} < 80.37 \text{ ton/yr} \quad (\text{will comply})$$

Allowable PM emissions for PSD non-applicability are apportioned to the two aggregate drying facilities as follows:

Batch Plant Aggregate Dryer:

$$220 \text{ tons/hr} / 620 \text{ tons/hr (total)} * 80.37 \text{ tons/yr} = 28.52 \text{ tons/yr}$$

$$\text{Using the AP-42 emission factor of } 32 \text{ lb PM/ton, the potential PM emission} = 30835.20 \text{ tons/yr}$$

$$\begin{aligned} \text{To comply with the allowable limit, the emission factor for compliance} &= 0.030 \text{ lb PM/ton, and} \\ \text{the control efficiency needed for compliance} &= 99.9\%, \text{ and} \\ \text{the equivalent pounds/hour at 8760 hours year} &= 6.51 \text{ lb/hr} \end{aligned}$$

Drum-Mix Plant Aggregate Dryer:

$$400 \text{ tons/hr} / 620 \text{ tons/hr (total)} * 80.37 \text{ tons/yr} = 51.85 \text{ tons/yr}$$

$$\text{Using the AP-42 emission factor of } 28 \text{ lb PM/ton, the potential PM emission} = 49056.00 \text{ tons/yr}$$

$$\begin{aligned} \text{To comply with the allowable limit, the emission factor for compliance} &= 0.030 \text{ lb PM/ton, and} \\ \text{the control efficiency needed for compliance} &= 99.9\%, \text{ and} \\ \text{the equivalent pounds/hour at 8760 hours year} &= 11.84 \text{ lb/hr} \end{aligned}$$

FESOP PM10 Emission Limit for Drum-Mix & Batch Plant Aggregate Dryers:

Source-wide emissions of PM10 must be less than 100 tons per year for FESOP applicability. Therefore, PM10 from the 2 aggregate dryers shall be limited as follows:

$$100 \text{ tons PM10/yr} - 36.47 \text{ tons PM10 from other sources} = < 63.53 \text{ ton/yr} = 14.51 \text{ lbs/hr}$$

$$\text{Total PM10 from aggregate dryers control} = 63.53 \text{ tons/yr} < 63.53 \text{ ton/yr} \quad (\text{will comply})$$

Allowable PM10 emissions for FESOP compliance are apportioned to the two aggregate drying facilities as follows:

Batch Plant Aggregate Dryer:

$$220 \text{ tons/hr} / 620 \text{ tons/hr (total)} * 63.53 \text{ tons/yr} = 22.54 \text{ tons/yr}$$

$$\text{Using the AP-42 emission factor of } 4.5 \text{ lb PM10/ton, the potential PM emission} = 4336.20 \text{ tons/yr}$$

$$\begin{aligned} \text{To comply with the allowable limit, the emission factor for compliance} &= 0.023 \text{ lb PM10/ton, and} \\ \text{the control efficiency needed for compliance} &= 99.5\%, \text{ and} \\ \text{the equivalent pounds/hour at 8760 hours year} &= 5.15 \text{ lb/hr} \end{aligned}$$

Drum-Mix Plant Aggregate Dryer:

$$400 \text{ tons/hr} / 620 \text{ tons/hr (total)} * 63.53 \text{ tons/yr} = 40.99 \text{ tons/yr}$$

$$\text{Using the AP-42 emission factor of } 6.5 \text{ lb PM10/ton, the potential PM emission} = 11388.00 \text{ tons/yr}$$

To comply with the allowable I ERR ns/yr, the emission factor for compliance = ERR lb PM10/ton, and
the control efficiency needed for compliance = ERR , and
the equivalent pounds/hour at 8760 hours year = ERR lb/hr

Hazardous Air Pollutants (HAPs)

** aggregate dryer burner**

The following calculations determine the amount of HAP emissions created by the combustion of distillate fuel oil before & after controls @ 0.5% sulfur, from the aggregate dryer burner, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-10.

Hazardous Air Pollutants (HAP) $\frac{180.8 \text{ MMBtu/hr} \times 8760 \text{ hr/yr}}{2,000 \text{ lb/ton}}$ * Ef (lb/10¹² Btu) = (ton/yr)

| | | Potential To Emit | Limited Emissions |
|---------------------|-----------------------------|------------------------|------------------------|
| Arsenic: | 4 lb/10 ¹² Btu = | 3.17E-03 ton/yr | 3.17E-06 ton/yr |
| Beryllium: | 3 lb/10 ¹² Btu = | 2.38E-03 ton/yr | 2.38E-06 ton/yr |
| Cadmium: | 3 lb/10 ¹² Btu = | 2.38E-03 ton/yr | 2.38E-06 ton/yr |
| Chromium: | 3 lb/10 ¹² Btu = | 2.38E-03 ton/yr | 2.38E-06 ton/yr |
| Lead: | 9 lb/10 ¹² Btu = | 7.13E-03 ton/yr | 7.13E-06 ton/yr |
| Manganese: | 6 lb/10 ¹² Btu = | 4.75E-03 ton/yr | 4.75E-06 ton/yr |
| Mercury: | 3 lb/10 ¹² Btu = | 2.38E-03 ton/yr | 2.38E-06 ton/yr |
| Nickel: | 3 lb/10 ¹² Btu = | 2.38E-03 ton/yr | 2.38E-06 ton/yr |
| Total HAPs = | | 2.69E-02 ton/yr | 2.69E-05 ton/yr |

The following calculations determine the amount of HAP emissions created by the combustion of landfill gas before & after controls. The emission factor is taken from SMF003-8363-03112, issued September 3, 1997:

| | | Potential To Emit | Limited Emissions |
|--------------------|-------------------------|---------------------|---------------------|
| Total HAPs: | 14.1 lb/MMcf = * | 11.85 ton/yr | 11.85 ton/yr |

At a maximum usage of 90% LFG to 10% natural gas (see next page):

| | | |
|---------------------|---------------------|---------------------|
| Total HAPs:* | 10.69 ton/yr | 10.69 ton/yr |
|---------------------|---------------------|---------------------|

* Based on SMF003-8363-03112, issued September 3, 1997. The maximum uncontrolled single HAP emission rate is: 8.49 tons per year for hydrogen chloride (HCl).

**** aggregate drying: batch-mix plant ****

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-9 for a batch mix dryer which can be fired with either fuel oil or natural gas. HAP emission factors are the same for oil & gas.

Potential:

$$\text{Pollutant: } \frac{\text{Ef}}{2000} \frac{\text{lb/ton} \times 220}{\text{lb/ton}} \times \frac{\text{ton/hr} \times 8760}{\text{hr/yr}}$$

Hazardous Air Pollutants (HAPs):

| | | | Potential To Emit | Limited Emissions |
|---------------------------|---------|----------|--------------------|--------------------|
| Acetaldehyde: | 3.2E-04 | lb/ton = | 0.31 ton/yr | 0.31 ton/yr |
| Benzene: | 2.8E-04 | lb/ton = | 0.27 ton/yr | 0.27 ton/yr |
| Ethylbenzene: | 2.2E-03 | lb/ton = | 2.12 ton/yr | 2.12 ton/yr |
| Formaldehyde: | 7.4E-04 | lb/ton = | 0.71 ton/yr | 0.71 ton/yr |
| PAH (total) HAPs:* | 1.1E-04 | lb/ton = | 0.11 ton/yr | 0.11 ton/yr |
| Quinone: | 2.7E-04 | lb/ton = | 0.26 ton/yr | 0.26 ton/yr |
| Toluene: | 1.0E-03 | lb/ton = | 0.96 ton/yr | 0.96 ton/yr |
| Xylene: | 2.7E-03 | lb/ton = | 2.60 ton/yr | 2.60 ton/yr |
| Total HAPs = | | | 7.34 ton/yr | 7.34 ton/yr |

* See AP-42, Section 11.1, Table 11.1-9 for complete listing of PAH HAPs.

**** aggregate drying: drum-mix plant ****

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-10 for a drum mix dryer which can be fired with either fuel oil or natural gas. HAP emission factors for oil & gas are the same, except where individual factors are expressed.

Potential:

$$\text{Pollutant: } \frac{\text{Ef}}{2000} \frac{\text{lb/ton} \times 400}{\text{lb/ton}} \times \frac{\text{ton/hr} \times 8760}{\text{hr/yr}}$$

Hazardous Air Pollutants (HAPs):

| | | | Potential To Emit | Limited Emissions |
|---------------------------------------|---------|----------|---------------------|---------------------|
| Benzene: | 3.9E-04 | lb/ton = | 0.68 ton/yr | 0.68 ton/yr |
| Ethylbenzene: | 2.4E-04 | lb/ton = | 0.42 ton/yr | 0.42 ton/yr |
| Formaldehyde: | 3.1E-03 | lb/ton = | 5.43 ton/yr | 5.43 ton/yr |
| Hexane: | 9.2E-04 | lb/ton = | 1.61 ton/yr | 1.61 ton/yr |
| Isooctane: | 4.0E-05 | lb/ton = | 0.07 ton/yr | 0.07 ton/yr |
| Methylchloroform: | 4.8E-05 | lb/ton = | 0.08 ton/yr | 0.08 ton/yr |
| PAH (total) HAPs (No. 2 oil):* | 8.8E-04 | lb/ton = | 1.54 ton/yr | 1.54 ton/yr |
| PAH (total) HAPs (nat. gas):* | 1.9E-04 | lb/ton = | 0.33 ton/yr | 0.33 ton/yr |
| Toluene (No. 2 oil): | 2.9E-03 | lb/ton = | 5.08 ton/yr | 5.08 ton/yr |
| Toluene (nat. gas): | 1.5E-04 | lb/ton = | 0.26 ton/yr | 0.26 ton/yr |
| Xylene: | 2.0E-04 | lb/ton = | 0.35 ton/yr | 0.35 ton/yr |
| Total HAPs No. 2 Oil = | | | 15.27 ton/yr | 15.27 ton/yr |
| Total HAPs Nat. Gas = | | | 9.25 ton/yr | 9.25 ton/yr |

* See AP-42, Section 11.1, Table 11.1-9 for complete listing of PAH HAPs.

**** summary of source HAP emissions potential to emit ****

Hazardous Air Pollutants (HAPs):

| | LFG | Nat. Gas | No. 2 Oil | |
|--------------------|---------------|---------------|---------------|---------------|
| Acetaldehyde: | --- | 0.308 | 0.308 | ton/yr |
| Arsenic: | --- | --- | 0.003 | ton/yr |
| Benzene: | --- | 0.953 | 0.953 | ton/yr |
| Beryllium: | --- | --- | 0.002 | ton/yr |
| Cadmium: | --- | --- | 0.002 | ton/yr |
| Chromium: | --- | --- | 0.002 | ton/yr |
| Ethylbenzene: | --- | 2.540 | 2.540 | ton/yr |
| Formaldehyde: | --- | 6.144 | 6.144 | ton/yr |
| Hexane: | --- | 1.612 | 1.612 | ton/yr |
| Isocatane: | --- | 0.070 | 0.070 | ton/yr |
| Lead: | --- | --- | 0.007 | ton/yr |
| Manganese: | --- | --- | 0.005 | ton/yr |
| Mercury: | --- | --- | 0.002 | ton/yr |
| Methylchloroform: | --- | 0.084 | 0.084 | ton/yr |
| Nickel: | --- | --- | 0.002 | ton/yr |
| PAH (total) HAPs | --- | 0.439 | 1.648 | ton/yr |
| Quinone | --- | 0.260 | 0.260 | ton/yr |
| Toluene: | --- | 1.226 | 6.044 | ton/yr |
| Xylene: | --- | 2.952 | 2.952 | ton/yr |
| Hydrogen Chloride: | 8.490 | --- | --- | ton/yr |
| Other: | 2.202 | --- | --- | ton/yr |
| Total: | 10.692 | 16.590 | 22.643 | ton/yr |

**** summary of source HAP limited emissions ****

Hazardous Air Pollutants (HAPs):

| | LFG | Nat. Gas | No. 2 Oil | |
|--------------------|---------------|---------------|---------------|---------------|
| Acetaldehyde: | --- | 0.308 | 0.308 | ton/yr |
| Arsenic: | --- | --- | 0.003 | ton/yr |
| Benzene: | --- | 0.953 | 0.953 | ton/yr |
| Beryllium: | --- | --- | 0.002 | ton/yr |
| Cadmium: | --- | --- | 0.002 | ton/yr |
| Chromium: | --- | --- | 0.002 | ton/yr |
| Ethylbenzene: | --- | 2.540 | 2.540 | ton/yr |
| Formaldehyde: | --- | 6.144 | 6.144 | ton/yr |
| Hexane: | --- | 1.612 | 1.612 | ton/yr |
| Isocatane: | --- | 0.070 | 0.070 | ton/yr |
| Lead: | --- | --- | 0.007 | ton/yr |
| Manganese: | --- | --- | 0.005 | ton/yr |
| Mercury: | --- | --- | 0.002 | ton/yr |
| Methylchloroform: | --- | 0.084 | 0.084 | ton/yr |
| Nickel: | --- | --- | 0.002 | ton/yr |
| PAH (total) HAPs | --- | 0.439 | 1.648 | ton/yr |
| Quinone | --- | 0.260 | 0.260 | ton/yr |
| Toluene: | --- | 1.226 | 6.044 | ton/yr |
| Xylene: | --- | 2.952 | 2.952 | ton/yr |
| Hydrogen Chloride: | 8.490 | --- | --- | ton/yr |
| Other: | 2.202 | --- | --- | ton/yr |
| Total: | 10.692 | 16.590 | 22.643 | ton/yr |

